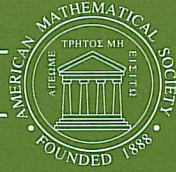

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Research-Expository Surveys David Eisenbud

Research Reports Haynes R. Miller

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This journal is devoted to articles of the following types:

Research-Expository Surveys

These are, by definition, papers that present a clear and insightful exposition of significant aspects of contemporary mathematical research. Gibbs lectures, Progress in Mathematics lectures, and retiring presidential addresses will be included in this section.

Research Reports

These are brief, timely reports on important mathematical developments. They are normally solicited and often written by a disinterested expert.

Book Reviews

Book Reviews are accepted for publication by invitation only. Unsolicited manuscripts will not be considered.

Submission information. See **Information for Authors** at the end of this issue.

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For Research-Expository Surveys and Research Reports, the first page must consist of a *descriptive title*, followed by an *abstract* that summarizes the article in language suitable for workers in the general field (algebra, analysis, etc.). The *descriptive title* should be short but informative; useless or vague phrases such as “some remarks about” or “concerning” should be avoided. The *abstract* should be a brief technical description of the new material. Then, for Research Reports there should be an introductory section addressed to nonexperts describing the motivation, background, and significance of the results announced. Following the statement of results, there should be a sketch of proofs that may be addressed to

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Screens should be set to values between 15% and 85%. Screens which fall outside of this range are too light or too dark to print correctly.

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Any inquiries concerning a paper that has been accepted for publication should be sent directly to the Electronic Prepress Department, American Mathematical Society, P. O. Box 6248, Providence, RI 02940-6248.

Research-Expository Surveys

This section is intended for reasonably broad expository surveys of a currently active area of mathematical research. To stress this fact, the name of the section has been changed from “Research-Expository Papers” to “Research-Expository Surveys”. The level of exposition is expected to be such that a graduate student—or a research mathematician from a remote area—will be able to read an article in order to get an overview of a subject. A well-written article will include motivating problems and examples, some indication of the historical development of the subject, and of course the results and open problems that make it an interesting and exciting area of mathematics. In most cases proofs should be at most briefly sketched, and there should be a good bibliography whose main aim should be helping those wishing to pursue the subject further. Usually Research-Expository Surveys will be at most 40 pages long.

Certain of the Society’s Lecture Series, including the Gibb’s Lectures, Colloquium Lectures, and Progress in Mathematics Lectures, traditionally appear in the Research-Expository Surveys, and those invited to give these lectures are informed of this tradition and of the above guidelines. Research-Expository Surveys are also frequently solicited by the Editorial Board, but unsolicited manuscripts are also encouraged; in particular, those invited to give invited hour addresses at meetings of the Society should consider writing up their lecture in a manner that meets the requirements of the preceding paragraph and submitting their manuscripts for consideration by the Editorial Board for the Research-Expository Surveys.

Research Reports

A Research Report is a timely, short (4–8 pages) report on a recent accomplishment in mathematical research. It should be written so as to be understandable by mathematicians who are not experts in the subject matter of the Report. The context giving significance to the research being reported on should be made clear, and the consequences or potential consequences should be described. Usually only the barest hint of the methods of proof should be given, although elements of the proof which are novel should be included. In any case, references should be given so that an interested reader can find the details. It is expected that Research Reports will frequently be written by specialists other than the individuals immediately involved in the research. Approximately twenty-four Reports will be published each year.

Research Reports are normally solicited by the Editor for Research Reports and the Board of Associate Editors. They cordially invite suggestions for topics and reporters. Unsolicited manuscripts, submitted to the Editor for Research Reports, will also be considered.

(Continued from back cover)

Erwin Kreyszig (Reviewer), Applied functional analysis (Applications to mathematical physics) by Eberhard Zeidler	403
James E. Baumgartner (Reviewer), Cardinal arithmetic by Saharon Shelah	409

RESEARCH-EXPOSITORY SURVEYS

David Eisenbud, Mark Green, and Joe Harris, Cayley-Bacharach theorems and conjectures 295

Alan Edelman and Eric Kostlan, Erratum to "How many zeros of a random polynomial are real?" 325

RESEARCH REPORTS

Reyer Sjamaar, Symplectic reduction and Riemann-Roch formulas for multiplicities 327

BOOK REVIEWS

Jerry L. Kazdan (Reviewer), Riemannian geometry: A modern introduction by Isaac Chavel 339

Jack Feldman (Reviewer), Basic ergodic theory by M. G. Nadkarni 345

George B. Seligman (Reviewer), Lie algebras with triangular decompositions by Robert V. Moody and Arturo Pianzola 347

Mark S. Ashbaugh (Reviewer), Introduction to mechanics and symmetry: A basic exposition of classical mechanical systems by Jerrold E. Marsden and Tudor S. Ratiu 351

Alan L. Schwartz (Reviewer), The harmonic analysis of probability measures on hypergroups by Walter R. Bloom and Herbert Heyer 355

Ronald Cools (Reviewer), Lattice methods for multiple integration by Ian H. Sloan and Stephen Joe 363

Mark Green (Reviewer), Commutative algebra with a view toward algebraic geometry by David Eisenbud 367

Brian Parshall (Reviewer), Schur algebras and representation theory by Stuart Martin 371

David K. Arrowsmith (Reviewer), Elements of applied bifurcation theory by Yuri A. Kuznetsov 377

Alexander Dynin (Reviewer), The technique of pseudodifferential operators by H. O. Cordes; Pseudodifferential analysis on symmetric cones by A. Unterberger and H. Upmeyer 381

François Lalonde (Reviewer), J -holomorphic curves and quantum cohomology by Dusa McDuff and Dietmar Salamon 385

Domingo Toledo (Reviewer), Geometric group theory, Vol. 2: Asymptotic invariants of infinite groups by M. Gromov 395

Robert Connelly (Reviewer), Combinatorial rigidity by Jack Graver, Brigitte Servatius, and Herman Servatius 399

(Continued on inside back cover)

